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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Hajime Kimura
Serial No. : 10/727,057
Filed : December 4, 2003
Title : SEMICONDUCTOR DEVICE, DIGITAL-ANALOG CONVERTER AND
DISPLAY DEVICE THEREOF

Art Unit : 2819
Examiner : Khai M. Nguyen

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY TO ACTION OF AUGUST 5, 2005

Claims 1-46 are pending, with claims 1, 5, 6, 11, 13 and 15 being independent.

Applicant thanks the Examiner for allowing claims 15, 16, 25, 27, 29, 45 and 46.

Independent claims 1, 5, 6, 11 and 13, along with their dependent claims, 2-4, 7-10, 12, 14, 17-24, 26, 28, and 30-44, have been rejected as being anticipated by Nakao (U.S. Patent No. 6,437,716). Applicant respectfully traverses this rejection.

Independent claim 1 recites a semiconductor device that includes, among other features, "a switching circuit including: ... *m-pieces* of output terminals O1, O2, ..., and Om, and *m-pieces* of current sources I1, I2, ..., and Im, wherein the current source Ik and the output terminal Ok of the switching circuit are electrically connected to each other (k = 1 to m) " (emphasis added). Thus, different current sources are connected to different output terminals. - Applicant requests reconsideration and withdrawal of the rejection of claim 1, and its dependent claims, because Nakao does not describe or suggest the recited switching circuit having m-pieces of current sources and m-pieces of output terminals, where different current sources are connected to different output terminals. [Rob, the reason I changed this is that saying the number is the same provides a very easy design-around.]

Instead, Nakao describes a gamma correction adjustment circuit 42, which the Examiner equates to the recited switching circuit, having *ten* constant current sources (i, 2i, 4i, 8i, and 16i in each of two halves of the circuit of Fig. 4) and a *single output terminal* 48. Thus, Nakao fails to describe or suggest the recited switching circuit having m-pieces of current sources and m-

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pieces of output terminals, where sources current sources are connected to different output terminals.

Applicant disagrees with the Examiner's characterization of Nakao's circuit 42 as having "a plurality of output terminals selectively coupled to the terminal 48." Circuit 42, as shown in Figs. 1 and 4, has only *one terminal* that provides an output signal to other circuitry, and that terminal is terminal 48. Applicant submits that the Examiner is picking and choosing unspecified connections internal to circuit 42 and improperly characterizing them as output terminals of circuit 42.

For at least these reasons, applicant requests reconsideration and withdrawal of the rejection of claim 1 and its dependent claims 2-4, 30 and 35.

Independent claims 5, 6 and 11 each recite, among other features, "a switching circuit including n-pieces of input terminals and *m-pieces* of output terminals, and *m-pieces* of current sources, wherein the m-pieces of the current sources are each connected to one of the different output terminals" (emphasis added). For at least the reasons described above, applicant requests reconsideration and withdrawal of the rejection of claims 5, 6 and 11, and their dependent claims 7-10, 12, 17-23, 31-33, and 36-42, because Nakao does not describe or suggest the recited switching circuit having m-pieces of current sources and m-pieces of output terminals, where different current sources of are connected to different output terminals.

Independent claim 13 recites, among other features, "a switching circuit including n-pieces of input terminals, *m-pieces* of output terminals, and m-pieces of switch units, and *m-pieces* of current sources, wherein the m-pieces of the current sources are each connected to one of the different output terminals" (emphasis added). For at least the reasons described above, applicant requests reconsideration and withdrawal of the rejection of claim 13, and its dependent claims 14, 24, 26, 28, 34, 43, and 44, because Nakao does not describe or suggest the recited switching circuit having m-pieces of current sources and m-pieces of output terminals, where different current sources are connected to different output terminals.

Applicant : Hajime Kimura
Serial No. : 10/727,057
Filed : December 4, 2003
Page : 3 of 3

Attorney's Docket No.: 12732-186001 / US6794

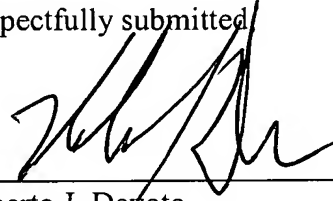
Applicant does not acquiesce to the characterizations of the art. For brevity and to advance prosecution, however, applicant has not addressed all characterizations of the art, but reserve the right to do so in further prosecution of this or a subsequent application.

Applicant submits that all claims are in condition for allowance.

Enclosed is a \$120 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Date: 12/5/05

Respectfully submitted



Roberto J. Deyoto
Reg. No. 55,108

Fish & Richardson P.C.
1425 K Street, N.W.
11th Floor
Washington, DC 20005-3500
Telephone: (202) 783-5070
Facsimile: (202) 783-2331